

# Eligibility for Erythropoiesis-stimulating agent therapy as an alternative to red blood cell transfusion in patients with Myelodysplastic Syndrome

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# Clinical Audit

- Aims
  - Primary
    - Identify patients who may be eligible for ESA therapy and to provide evidence that ESA usage would decrease costs associated with Tx
  - Secondary
    - Audit to determine the Haematology-Oncology clinics adherence to 2013 guidelines .



# Why ESAs ?

- Cost effective
- Reduced need for PRBC Tx
- Increased access to Tx day case wards/ clinics

# ESA Costs

Tx + Chelation<sub>(50%)</sub> = £ 12, 984

ESAs = £ 7, 368

Average cost saving PP/ p.a.= £ 5, 616

(Killick, 2013)



# Patient eligibility for ESAs

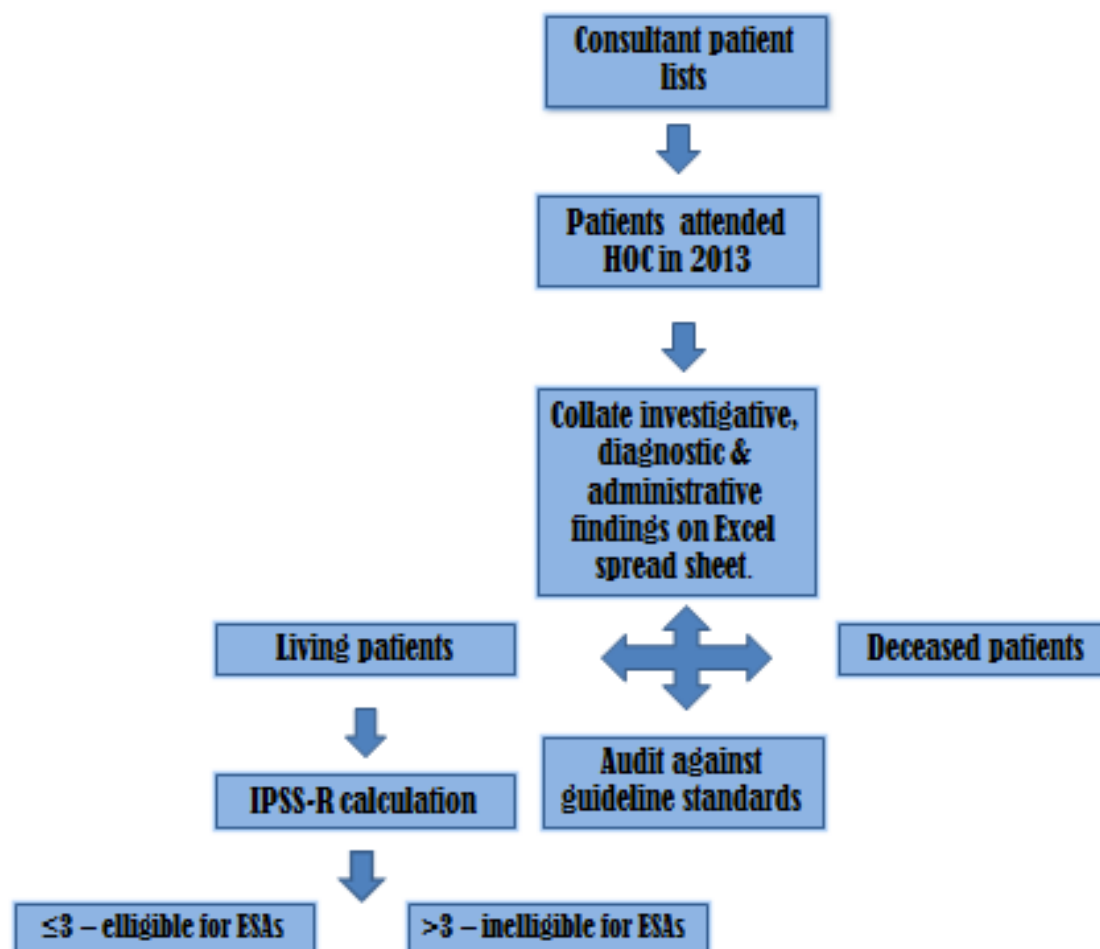
- Eligibility ascertained using the IPSS or IPSS-R
- Patients Classified IPSS *Low* & *INT-1* risk
- Patients Classified IPSS-R *Very Low* & *Low* risk
- Response predicted using the validated response prediction model (Hellström - Lindberg *et al*, 2003).

# Response prediction

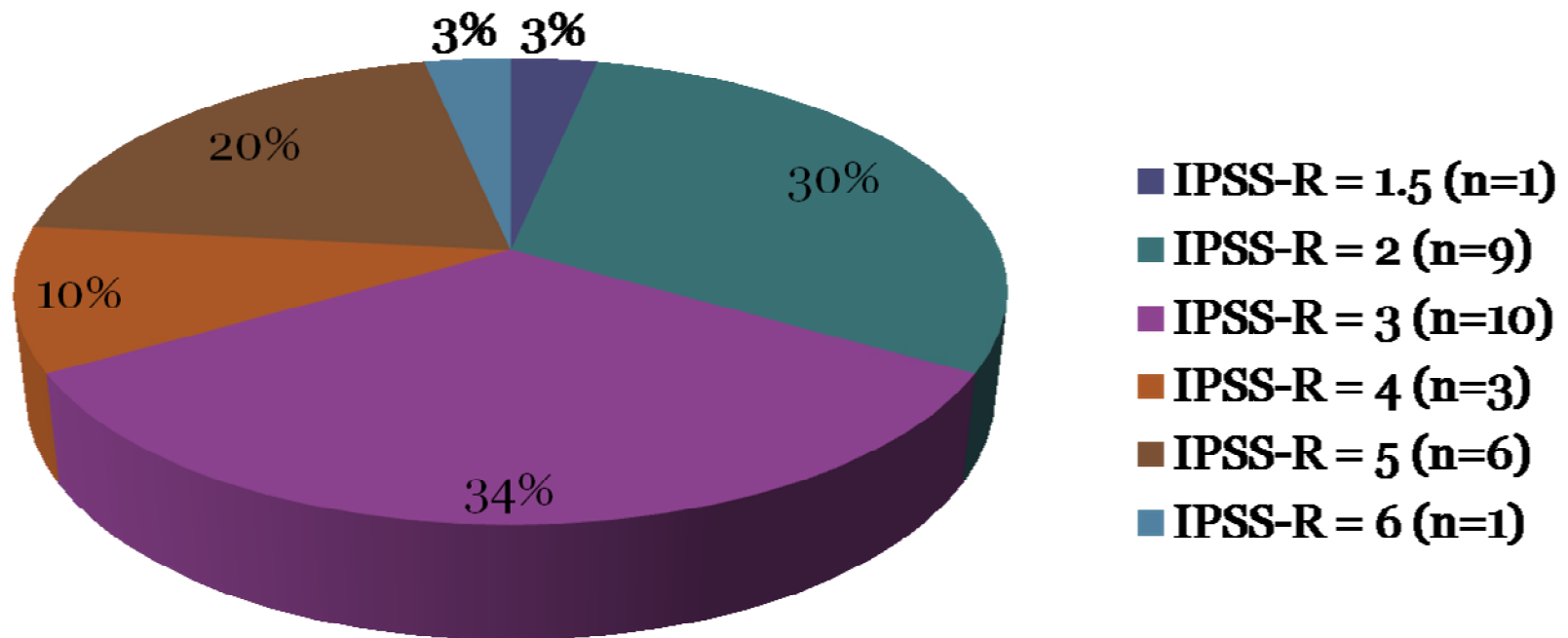
<u>Transfusion need</u>	<u>Point</u>	<u>Serum EPO</u>	<u>Point</u>
< 2 units PRBCs/month	0	< 500u/L	0
≥ 2 unites PRBCs/month	1	≥ 500u/L	1

<u>Score</u>	<u>Response Rate</u>
0	74%
1	23%
2	7%

# Audit Design & Process



## IPSS-R score distribution





# Audit Findings

- 4 Pt's required in excess of 24 PRBCs p.a.
- 14 Pt's had Tx requirements of < 24 PRBC p.a.
  - ↳ 7 Pt's Tx dependent
  - ↳ 7 Pt's did not require transfusion



# Predicted cost savings

- Cost saving if on ESAs<sub>(7)</sub> = approx £ 39, 312
- Based on a Tx requirement of 3 PRBCs PP/ p.m.



# Conclusion

- Fulfilled primary aim by identifying those patients who may be eligible for ESA therapy.
- ESA may provide cost savings in excess of £ 39, 000 p.a.
- Highlighted gap between guidelines and current practice.
- Implementation: MDS clinic, 1 consultant, planned repeat audit against BCSH guidelines